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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<table>
<tr>
<td rowspan="3">Office Action Summary</td>
<td>Application No.</td>
<td>Applicant(s)</td>
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<td>10/754,098</td>
<td>KNAUERHASE ET AL.</td>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/29/2009*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24,26-35 and 37-53* is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24,26-35 and 37-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a)☐ All　b)☐ Some * c)☐ None of:

　　　1.☐ Certified copies of the priority documents have been received.

　　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
　　Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
　　Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to amendment filed on 7/29/2009.

Response to Amendment

2. The examiner has acknowledged the amended claims 8, 15-16, 20-21, 49, the new claims 50-53. The objection to claim 49 has been corrected and withdrawn accordingly. The 101 rejection to claims 16, 24, and 26 has been corrected and withdrawn accordingly. The 112 second paragraph rejection to claims 8 and 15 has been corrected and withdrawn accordingly. Claims 1-24, 26-35, and 37-53 are pending.

Response to Arguments

3. Applicant's arguments, see pages 12-14, filed on 7/29/2009, with respect to the rejections of claim(s) 16 and 27 under 35 U.S.C. 112 first paragraph and second paragraph have been fully considered and are persuasive. Therefore, the rejections have been withdrawn.

4. Applicant's arguments, see pages 14-28, filed on 7/29/2009, with respect to the rejections of claim(s) under 35 U.S.C. 102(e) and 103 have been fully considered but they are not persuasive.

   In the remarks, the applicant argues in substance that: A) the Applicant does not believe Bulson teaches "select a first virtual machine from a plurality of virtual machines offering the first service responsive to the request". B) new claim 50 has been added to emphasize that at least one virtual machine in the claimed invention can process multiple requests. If the virtual machines of Bulson are

shut down after a single request is satisfied, then no virtual machine in Bulson

can process multiple requests. C) Bulson does not teach or suggest a database

of images or a service manager operative to install an image from the database

of images as the virtual machine. D) Bulson does not teach or suggest the

service manager including a table to indicate a state for each virtual machine in

the set of virtual machines. E) The Applicant respectfully requests the Examiner

to compare, for example, claims 16 and 18. In claim 16, the selected virtual

machine offers the requested service, which is already in the list of services, and

therefore an existing virtual machine can process the request. In claim 18, after it

is determined that the requested service is not in the list of services, a new virtual

machine is created and installed to offer the requested service, after which the

requested service is added to the list of services. This shows that the "list of

services" is not a list of all services that could conceivably be offered by any

virtual machine, including virtual machines not currently installed: the "list of

services" is the services available from the virtual machines currently installed.

F) Bulson does not teach at least one of the virtual machines implementing

multiple services. G) Applicant respectfully requests the Examiner to substantiate

the Examiner's assertion, or withdraw the rejection of claims 4, 26, and 37. H)

the Examiner has failed to make a prima facie rejection that claims 20 and 31 are

obvious over Bulson in view of Ottati.

    In response to A) Bulson discloses a job management service and a plurality

of manager virtual machines in nodes 1-n [see FIG. 2A and para. 0023, 0025].

Bulson further discloses that in response to receiving the service request, the job

management service sends a query to one or more manager virtual machines to

determine the resource availability on the nodes managed by the manager virtual

machines. Finally the job management service submits the request to a selected

manager virtual machine [see para. 0028]. As such, Bulson clearly teaches

"select a first virtual machine from a plurality of virtual machines offering the first

service responsive to the request".

In response to B) Bulson discloses that a manager virtual machine that is

responsible for spawning **one or more job virtual machines** for requests to be

processed within a logical partition [see para. 0049]. Note that each job virtual

machine can process one request. Thus Bulson indeed teaches that a virtual

machine (or a manager virtual machine) can process multiple requests.

In response to C) Bulson's predefined job virtual machines before being

activated is equivalent to the database of images of the instant application [see

para. 0029]. Bulson further discloses that in response to receiving the job

request, the manager virtual machine activates a job virtual machine. Thus

Bulson indeed suggests a database of images and a service manager operative

to install an image from the database of images as the virtual machine.

In response to D) Bulson discloses that during processing of the request, the

job virtual machine communicates directly with the job management service to

provide status and/or results [see para. 0025]. Thus the job management service

has statuses/results of all job virtual machines. Bulson indeed suggests the

service manager including a table to indicate a state for each virtual machine in the set of virtual machines.

In response to E) Bulson discloses two kinds of job virtual machines: 1. those predefined such that they can be activated without performing a defining action; 2. those are not predefined, but instead, are defined when needed [see para. 0029]. Those predefined support "list of services" and those defined when needed provide services which are not in the list of services [i.e., a new virtual machine is defined and activated to offer the requested service, after which the newly defined becomes predefined].

For F) please see response to B) above.

In response to G) the Examiner's assertion is substantiated.

In response to H) as the Examiner indicated in the office action, it is common sense that in order to install an image one must make decision what machine(s) to install before installing the image [i.e., selecting one of a set of machines to support the new virtual machine and installing the image for the new virtual machine in the selected machine].

Thus, in view of such, the rejection is sustained as follows:

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects

for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-3, 5-17, 24, 27-28, 35, and 38-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Bulson et al. (US 2005/0060704 A1, hereinafter Bulson).

Regarding claim 1, Bulson discloses a service apparatus implemented in a machine, comprising:

a service request receiver to receive a request for a first service [i.e., Job Management Service 302] [FIG. 3 and para. 0028];

a storage [i.e., "a node is a mainframe computer based on the S/390 Architecture or z/Architecture offered by International Business Machines Corporation"; storage medium] [para. 0021, 0054];

a set of virtual machines stored in the storage, each virtual machine to implement a service [i.e., Manager VMs and job VMs in nodes 1, 2,...n] [FIG. 2A, and para. 0023, 0029];

a service manager to manage the set of virtual machines [i.e., Job Management Service 206 and Manager VMs] [FIG. 2A and para. 0025,] and to select a first virtual machine from a plurality of virtual machines offering the first service responsive to the request [i.e., job management service 302 sends a query to one or more manager virtual machines 304 to determine the resource availability on the nodes managed by the manager virtual machines... The job management service then submits the request to a selected manager virtual machine] [para. 0028]; and

a transmitter to return an access to the first virtual machine in the set of

virtual machines as a response to the request for the first service [i.e.,

"the manager virtual machine returns a handle (e.g., an identifier) of

the job virtual machine to the job management service, so that the job

management service can communicate directly with the job virtual

machine"] [para. 0037].

Regarding claim 2, Bulson discloses a service apparatus according to claim

1, wherein: the service apparatus further comprises:

a database of service provider data [para. 0023, a node includes a

plurality of virtual machines; para. 0049, one or more applications]; and

an image constructor to use the database to construct an image [para.

0029, "one or more of the job virtual machines are not predefined, but

instead, are defined when needed"]; and

the service manager is operative to install the image as the first virtual

machine in the set of virtual machines [para. 0029, in response to

receiving the job request, the manager virtual machine activates a job

virtual machine].

Regarding claim 3, Bulson discloses a service apparatus according to claim

1, wherein:

the service apparatus further comprises a database of images [para.

0029, predefined job virtual machines before being activated]; and

the service manager is operative to install a first image from the database

of images as the first virtual machine in the set of virtual machines

[para. 0029, in response to receiving the job request, the manager

virtual machine activates a job virtual machine].

Regarding claim 5, Bulson discloses a service apparatus according to claim

1, further comprising a deleter to delete the virtual machine [abstract, "The

controlling virtual machine manages the start-up, provision of resources, and the

shut-down of the on-demand virtual machine"] .

Regarding claim 6, Bulson discloses a service apparatus according to claim

1, the service manager including a table stored in the storage, the table to

indicate a state for each virtual machine in the set of virtual machines [para.

0025, "During processing of the request, the job virtual machine communicates

directly with the job management service to provide status and/or results", thus

the job management service has statuses/results of all job virtual machines].

Regarding claim 7, Bulson discloses a service apparatus according to claim

1, further comprising a list of services offered by the service apparatus, the list of

services to include at least the services offered by each virtual machine in the set

of virtual machines [para. 0029, "While one or more job virtual machines are

predefined in this embodiment to minimize time in activating a virtual machine, in

other embodiments, one or more of the job virtual machines are not predefined,

but instead, are defined when needed".].

Regarding claim 8, Bulson discloses a service apparatus according to claim 1, wherein at least one of the virtual machines implements the service and a second service [para. 0049, a manager virtual machine that is responsible for spawning **one or more job virtual machines** for requests to be processed within a logical partition. Note that each job virtual machine can process one request. Thus Bulson indeed teaches that a virtual machine (or a manager virtual machine) can process multiple requests].

Regarding claim 9, Bulson discloses a system, comprising:

a network [FIG. 1];

a service request receiver to receive a request for a first service [i.e., Job Management Service 302] [FIG. 3 and para. 0028];

a list of services offered [FIG. 2A, and para. 0023; para. 0029, "While one or more job virtual machines are predefined in this embodiment to minimize time in activating a virtual machine, in other embodiments, one or more of the job virtual machines are not predefined, but instead, are defined when needed"];

a service manager to manage the set of virtual machines [i.e., Job Management Service 206 and Manager VMs] [FIG. 2A and para. 0025,] and to select a first virtual machine from a plurality of virtual machines offering the first service responsive to the request [i.e., job management service 302 sends a query to one or more manager virtual machines 304 to determine the resource availability on the

nodes managed by the manager virtual machines… The job

management service then submits the request to a selected manager

virtual machine] [para. 0028]; and

a transmitter to return an access to the first virtual machine in the set of

virtual machines as a response to the request for the first service [i.e.,

"the manager virtual machine returns a handle (e.g., an identifier) of

the job virtual machine to the job management service, so that the job

management service can communicate directly with the job virtual

machine"] [para. 0037].

Regarding claim 10, Bulson discloses a system according to claim 9, further

comprising a client machine coupled to the network, the client computer to send

the request [FIG. 1, User Workstation 102].

Regarding claim 11, Bulson discloses a system according to claim 9, further

comprising at least one server farm machine [FIG. 2A, nodes 200], each server

farm machine including:

a storage [para. 0027, virtual storage, file system space]; and

at least one virtual machine from the set of virtual machines, stored in the

storage of the server farm machine, each virtual machine to implement

a service [para. 0023, a node includes a plurality of virtual machines;

para. 0049, one or more applications].

Regarding claim 12, Bulson discloses a system according to claim 9, further

comprising a list of services offered by the system, the list of services to include

at least the services offered by each virtual machine in the set of virtual machines [FIG. 2A, and para. 0023; para. 0029, "While one or more job virtual machines are predefined in this embodiment to minimize time in activating a virtual machine, in other embodiments, one or more of the job virtual machines are not predefined, but instead, are defined when needed"].

Claim 13 is of the same scope as claim 1. It is rejected for the same reason as claim 1.

Regarding claim 14, Bulson discloses a system according to claim 9, further comprising:

a service apparatus, the service apparatus to include the service request receiver [FIG. 3 and para. 0028, STEP 314.] and the transmitter [para. 0037, "the manager virtual machine returns a handle (e.g., an identifier) of the job virtual machine to the job management service, so that the job management service can communicate directly with the job virtual machine"];

at least one server farm machine [FIG. 2A, nodes 200], each server farm machine to include:

a storage [para. 0027, virtual storage, file system space]; and

at least one virtual machine from the set of virtual machines, stored in the storage of the server farm machine, each virtual machine to implement a service [para. 0023, a node includes a plurality of virtual machines; para. 0049, one or more applications]; and

a management machine, the management machine to include the

service manager [FIG. 2A, Job management service and manager VM].

Claim 15 is of the same scope as claim 8. It is rejected for the same reason

as claim 8.

Regarding claim 16, Bulson discloses a method, comprising:

receiving a request for a service <u>at a server</u> [i.e., Job Management Service

302] [FIG. 3 and para. 0028];

accessing a list of services offered by a set of virtual machines <u>supported</u>

<u>by</u> <u>a set of machines</u> [para. 0029, "While one or more job virtual machines are

predefined in this embodiment to minimize time in activating a virtual

machine, in other embodiments, one or more of the job virtual machines are

not predefined, but instead, are defined when needed"];

determining if the requested service is in the list of services [para. 0029,

predefined job virtual machines]; and

if the requested service is in the list of services:

determining a plurality of virtual machine offering the requested

service [para. 0029, predefined job virtual machines];

selecting one of the plurality of virtual machines [para. 0029, STEP

316, "the manager virtual machine activates a job virtual machine"]; and

returning an identifier for the selected virtual machine offering the

requested service [para. 0037, STEP 322].

Regarding claim 17, Bulson further discloses if the requested service is not in

the list of services:

creating an image for a new virtual machine that offers the requested

service [para. 0029, "one or more of the job virtual machines are not

predefined, but instead, are defined when needed"; para. 0043, "original

image"];

installing the image for the new virtual machine [para. 0029, "one or more

of the job virtual machines are not predefined, but instead, are defined when

needed"; para. 0043, "placing the job virtual machine back to its original

image" during clean-up implies installing the image for the new virtual

machine to begin with]; and

returning an identifier for the new virtual machine [para. 0037, STEP 322].

Regarding claim 24, Bulson discloses a method according to claim 16,

wherein:

determining the virtual machine offering the requested service includes:

determining that a new virtual machine should offer the requested service

[para. 0029, "one or more of the job virtual machines are not predefined, but

instead, are defined when needed"];

creating an image for the new virtual machine; and installing the image for

the new virtual machine [para. 0029, "one or more of the job virtual machines

are not predefined, but instead, are defined when needed"; para. 0043,

"placing the job virtual machine back to its original image" during clean-up

implies installing the image for the new virtual machine to begin with];

returning an identifier for the virtual machine includes returning an

identifier for the new virtual machine [para. 0037].

Claim 27 is of the same scope as claim 16. It is rejected for the same reason

as for claim 16.

Claim 28 is of the same scope as claim 17. It is rejected for the same reason

as for claim 17.

Claim 35 is of the same scope as claim 24. It is rejected for the same reason

as for claim 24.

Regarding claim 38, Bulson further discloses wherein the first virtual machine

does not implement the second service [para. 0029, "While one or more job

virtual machines are predefined in this embodiment to minimize time in activating

a virtual machine, in other embodiments, one or more of the job virtual machines

are not predefined, but instead, are defined when needed"].

Claim 39 is of the same scope as claim 38. It is rejected for the same reason

as for claim 38.

Regarding claim 40, Bulson further discloses wherein:

accessing a list of services offered by a set of virtual machines includes

accessing the list of services offered by the set of virtual machines, the list of

services including at least the requested service and a second service [para.

0028, STEP 310; para. 0029, "While one or more job virtual machines are

predefined in this embodiment to minimize time in activating a virtual

machine, in other embodiments, one or more of the job virtual machines are

not predefined, but instead, are defined when needed"]; and

selecting one of the plurality of virtual machines includes selecting the one

of the plurality of virtual machines offering the requested service and not

offering the second service [para. 0028, STEP 314; para. 0029, "While one or

more job virtual machines are predefined in this embodiment to minimize time

in activating a virtual machine, in other embodiments, one or more of the job

virtual machines are not predefined, but instead, are defined when needed"].

Claim 41 is of the same scope as claim 40. It is rejected for the same reason

as for claim 40.

Regarding claim 42, Bulson further discloses wherein the service manager is

operative to select a first virtual machine from a plurality of virtual machines

offering the first service responsive to the first service in the request [para. 0029,

STEP 316, "the manager virtual machine activates a job virtual machine"].

Regarding claim 43, Bulson further discloses wherein the set of virtual

machines includes a second virtual machine that does not implement the first

service [para. 0028, STEP 314; para. 0029, "While one or more job virtual

machines are predefined in this embodiment to minimize time in activating a

virtual machine, in other embodiments, one or more of the job virtual machines

are not predefined, but instead, are defined when needed"].

Claims 44, 46, and 48 are of the same scope as claim 42. They are rejected

for the same reason as for claim 42.

Claims 45, 47, and 49 are of the same scope as claim 43. They are rejected

for the same reason as for claim 43.

Regarding claim 50, Bulson further discloses wherein at least one virtual

machine in the set of virtual machines can process multiple requests [i.e., a

manager virtual machine that is responsible for spawning **one or more job**

virtual machines for requests to be processed within that logical partition. Note

that each job virtual machine can process one request] [para. 0049].

Claims 51-53 are of the same scope as claim 50. They are rejected for the

same reason as for claim 50.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
are such that the subject matter as a whole would have been obvious at the time the invention was made to
a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
negatived by the manner in which the invention was made.

8. Claims 4, 26, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Bulson as applied to claim 1, in view of Guillen et al. (US 5,838,980,

hereinafter Guillen).

Regarding claim 4, Bulson discloses a service apparatus according to claim

1, but silent about further comprising an archiver to archive the virtual machine.

However, archiving the virtual machine is a well known technique in resource

management as evidenced by Guillen disclosing virtual machine code may be, and typically is, erased, archived, or destroyed, depending upon user preference and system needs [see col. 1, lines 55-65]. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to try to archive the virtual machine for the purpose of saving memory by swapping inactive virtual machines out of the processor and active memory, thereby those virtual machine can be restored without re-instantiation.

Regarding claim 26, Bulson discloses the invention except for determining if the virtual machine is archived and if the requested machine is archived, activating the virtual machine. However, archiving the virtual machine is a well known technique in resource management as evidenced by Guillen disclosing virtual machine code may be, and typically is, erased, archived, or destroyed, depending upon user preference and system needs [see col. 1, lines 55-65]. Thus it would have been obvious to one of ordinary skill in the art at the time the invention was made to try to determine if the virtual machine is archived and if the requested machine is archived, activating the virtual machine for the purpose of saving memory by swapping inactive virtual machines out of the processor and active memory, thereby those virtual machines can be restored without re-instantiation.

Claim 37 is of the same scope as claim 26. It is rejected for the same reason as for claim 26.

9. Claims 20-23, and 31-34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bulson as applied to claim 16, in view of Ottati (US 6,704,764

B1, hereinafter Ottati).

Regarding claim 20, Bulson and Ottati do not specifically disclose selecting

one of a set of machines to support the new virtual machine and installing the

image for the new virtual machine in the selected machine. However, it is

common sense that in order to install an image one must make decision what

machine(s) to install before installing the image [i.e., selecting one of a set of

machines to support the new virtual machine and installing the image for the new

virtual machine in the selected machine]. It would have been obvious to a

person with ordinary skill in the art at the time the invention was made to do so.

Regarding claim 21, Bulson and Ottati disclose the claimed invention except

for wherein selecting one of a set of machines includes selecting the selected

machine to balance loads on the machines in the set of machines. However,

Ottati teaches load balancing in a distributed system [abstract]. Thus it would

have been obvious to one of ordinary skill in the art at the time the invention was

made to optimize system performance by load balancing the set of machines.

Regarding claim 22, Bulson and Ottati further disclose wherein creating an

image includes selecting a combination of software packages that define the new

virtual machine to offer the requested service [In order to create an image on the

fly, one must have a plurality of software packages ready and must select a

combination of software packages that define the new virtual machine to offer the requested service].

Regarding claim 23, Bulson and Ottati disclose the claimed invention except for creating an image includes copying the image for the new virtual machine from a set of pre-constructed images. It would have been obvious to one of ordinary skill in the art at the time the invention was made to copy the image for the new virtual machine from a set of pre-constructed images for the purpose of re-using existing software images, thereby saving operating cost.

Claim 31 is of the same scope as claim 20. It is rejected for the same reason as for claim 20.

Claim 32 is of the same scope as claim 21. It is rejected for the same reason as for claim 21.

Claim 33 is of the same scope as claim 22. It is rejected for the same reason as for claim 2.

Claim 34 is of the same scope as claim 23. It is rejected for the same reason as for claim 23.

10. Claims 18-19 and 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bulson, in view of Ottati and Bulson as applied to claim 17, and further in view of Edstrom et al. (US 2002/0013827 A1, hereinafter Edstrom).

Regarding claim 18, Bulson-Ottati-Bulson disclose a method according to claim, but are silent about further comprising adding the requested service to the list of services. However, Edstrom teaches adding the desired service to a list of

subscribed-to services [para. 0102, lines 14-17]. Thus it would have been
obvious to one of ordinary skill in the art at the time the invention was made to
add the requested service to the list of services for the purpose of providing
faster and more efficient services in the future by updating the service list.

Regarding claim 19, Bulson-Ottati-Bulson-Edstrom further disclose wherein
adding the requested service includes identifying the new virtual machine in the
list of services as offering the requested service [In order to add the requested
service to the list of services, one must identify the new virtual machine in the list
of services as offering the requested service first. Afterward, it doesn't make
sense to add a service without the support of the corresponding virtual machine].

Claim 29 is of the same scope as claim 18. It is rejected for the same reason
as for claim 18.

Claim 30 is of the same scope as claim 19. It is rejected for the same reason
as for claim 19.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire
THREE MONTHS from the mailing date of this action. In the event a first reply is
filed within TWO MONTHS of the mailing date of this final action and the advisory
action is not mailed until after the end of the THREE-MONTH shortened statutory
period, then the shortened statutory period will expire on the date the advisory

action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

12. The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Applicant is reminded that in amending in response to a

rejection of claims, the patentable novelty must be clearly shown in view of the

state of the art disclosed by the references cited and the objection made.

Applicant must show how the amendments avoid such references and

objections. See 37 CFR 1.111(c).

13. Nageswaran, US Patent Number 5,991,792, has taught a method dynamically

managing a thread pool of reusable threads in a computer system.

14. Prokop et al., US Patent Number 5,170,340, has taught **a plurality of discrete

job processing virtual machines with each of the virtual machines having at

least one service associated with it for implementing the virtual machine**.

Examiner's Note: Examiner has cited particular columns and line numbers in

the references applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and

are applied to specific limitations within the individual claim, other passages and

figures may apply as well. It is respectfully requested from the applicant in

preparing responses, to fully consider the references in entirety as potentially

teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL C. LAI whose telephone number is (571)270-3236. The examiner can normally be reached on M-F 8:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael C. Lai
04DEC2009

/YVES DALENCOURT/
Primary Examiner, Art Unit 2457